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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,275	03/23/2001	Manus P. Henry	02052-104001 / GML2209	4576

7590 02/20/2004

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WASHINGTON, DC 20005-3500

EXAMINER

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/815,275

Applicant(s)	
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HENRY ET AL.

Examin r

Michael P Nghiem

Art Unit	
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2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-20 is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7 and 8 is/are rejected.
- 7) ☒ Claim(s) 2 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10-21-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The Amendment filed on February 5, 2004 has been acknowledged.

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 5, 2004 has been entered.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

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- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yang (US 5,774,378).

Regarding claim 1, Yang discloses a multi-level (hierarchical) process monitoring system (Fig. 1) comprising:

- a process monitoring unit (16), at a higher level of the system, and a plurality of sensors (12's) at a lower level of the system (Fig. 1), at least one of the sensors having SEVA capability (Abstract, lines 1-2), the sensors being adapted to provide respective measurement values of respective process variables to said monitoring unit (Fig. 1), said monitoring unit being so arranged as to monitor the outputs of the sensors and to identify any significant apparent change in the process conditions based on a comparison of a combination of said sensor outputs (combination of 12's, Fig. 1) with reference information (column 4, lines 49-53), and on detection of an apparent significant change, to request additional status information from at least one of the SEVA sensor/s (column 4, lines 46-49) to determine whether the apparent change is in reality due to a change in the characteristics of a particular SEVA sensor rather than an actual significant change in the process conditions (column 4, line 65 - column 5, line 15);

Regarding claim 3, Yang discloses that most of the sensors are SEVA sensors (Fig. 1).

Regarding claim 4, Yang discloses that the monitoring unit obtains the overview using a multivariate statistical analysis of the measurement values of the sensors (different alarm levels are used, column 4, lines 51-53), and compares the results of that analysis with the reference information (predetermined limit, column 4, line 50) to identify any

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significant apparent change in process conditions, to determine whether or not to initiate interrogation of the SEVA sensor/s (column 4, lines 46-53);

Regarding claim 5, Yang discloses that the reference information is comprised of predictions of a model and/or historical data of stored statistical analysis (column 5, lines 1-15).

Regarding claim 7, Yang discloses that the request for additional status information initiates the application of a non-routine test in or to at least one of the SEVA sensor/s (column 7, line 62 - column 8, line 12).

Regarding claim 8, Yang discloses that at least some SEVA sensors measure the same variable, and the SEVA measurements (VMV, VU and MV status) of the same variable are combined to generate a best estimate (column 4, lines 22-28).

Allowable Subject Matter

4. Claims 2 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 10-20 are allowed.

Reasons for Allowance

6. The combination as claimed wherein a process monitoring system comprising one or more actuators to provide the monitoring unit with actuator position signals (claims 2, 6) or combining first and second sensor signals to obtain apparent status information (claims 10, 16) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

7. Applicant's arguments filed on February 5, 2004 have been fully considered but they are not persuasive.
Applicants have not responded to the objections to the specification.

With respect to the 35 USC 102 rejections, Applicants argue that Yang does not disclose or properly suggest comparison of a combination of said sensor outputs with reference information.

Examiner's position is that Yang discloses "...said monitoring unit (16) being so arranged as to monitor the outputs of the sensors (column 4, lines 46-49) and to identify any significant apparent change in the process conditions based on a comparison of a combination of said sensor outputs (combination of 12's, Fig. 1) with reference information (column 4, lines 47-53)"

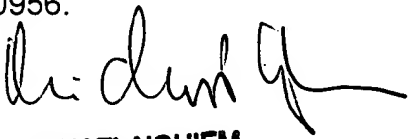
Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (571) 272-2272. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (571) 272-2269. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

0956.



MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

February 18, 2004